CLAIMS

1. An adhesion-enhanced polyimide film which comprises a core layer composed of a polyimide (A) having high rigidity and a low linear expansion coefficient, at least one side of which has a thin-layer formed by heating a coated layer comprising a heat-resistant surface treatment agent and a polyimide precursor which yields a highly heat-resistant amorphous polyimide (B).

2. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide (A) is obtained from 3,3',4,4'-biphenyltetracarboxylic dianhydride and p-phenylenediamine or p-phenylenediamine and 4,4'-diaminodiphenyl ether, from 3,3',4,4'-biphenyltetracarboxylic dianhydride and pyromellitic dianhydride and p-phenylenediamine or p-phenylenediamine and 4,4'-diaminodiphenyl ether, or from pyromellitic dianhydride and p-phenylenediamine and 4,4'-diaminodiphenyl ether.

3. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide (A) is obtained using 3,3',4,4'-biphenyltetracarboxylic dianhydride and p-phenylenediamine as the main components (at 50 mole percent or greater to 100 mole percent of the total).

4. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide (B) is obtained from at least one aromatic tetracarboxylic dianhydride selected from 2,3,3',4'-biphenyltetracarboxylic dianhydride, 2,2',3,3'-biphenyltetracarboxylic dianhydride, bis(3,4-dicarboxyphenyl)ether dianhydride, bis(2,3-dicarboxyphenyl)ether dianhydride and naphthalenetetracarboxylic dianhydride, and an aromatic diamine.

5. An adhesion-enhanced polyimide film according to claim 3, wherein the aromatic diamine is at least one member selected from p-phenylenediamine and 4,4'-diaminodiphenyl ether.

6. An adhesion-enhanced polyimide film according

to claim 1, wherein the heat-resistant surface treatment agent is an aminosilane compound, an epoxysilane compound or a titanate compound.

7. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide (A) core layer has a thickness of 10-35 μm.

8. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide (B) thin-layer has a thickness of 0.05-1 μm.

9. An adhesion-enhanced polyimide film according to claim 1, wherein the polyimide film as a whole has a tensile modulus (MD) of between 6 GPa and 12 GPa and a linear expansion coefficient of 5 x 10^{-6} to 30 x 10^{-6} cm/cm/°C (at 50-200°C).

10. A process for production of an adhesion-enhanced polyimide film, wherein an organic solvent solution comprising a heat-resistant surface treatment agent and a polyimide precursor which yields a highly heat-resistant amorphous polyimide (B) thin layer is coated onto at least one side of a self-supporting film obtained from a polyimide precursor solution which yields a polyimide (A) core layer having high rigidity and a low linear expansion coefficient, to form a multilayer self-supporting film which is then heated and dried to complete imidation.

11. An adhesion-enhanced polyimide film which is obtained by the production process of claim 10.

12. An adhesion-enhanced polyimide film in which a metal layer is laminated directly or via an adhesive onto an adhesion-enhanced polyimide film according to claim 1.

13. A flexible metal foil laminated body comprising a metal layer laminated directly or via an adhesive onto an adhesion-enhanced polyimide film according to any one of claims 1 to 9 or 11.